What is claimed is:

1. A nonlinear distortion compensating circuit comprising:

a power calculator for calculating a power value of an input signal;

an operating point setting unit for calculating an apparent power value from temperature information, supplied from an external source, representative of the measured temperature of a power amplifier for amplifying the input signal and the power value calculated by said power calculator, based on a relationship, which has been given beforehand to said operating point setting unit, between input vs. output characteristics of the power amplifier and the temperature of the power amplifier;

an inverse characteristics calculator for calculating an inversion of a nonlinear distortion caused by the power amplifier from inverse characteristics data, which have been given beforehand to said inverse characteristics calculator, about the nonlinear distortion caused by the power amplifier and the apparent power value calculated by said operating point setting unit; and

a complex multiplier for adding the inversion calculated by said inverse characteristics calculator to said input signal.

2. A nonlinear distortion compensating circuit according to claim 1, wherein said input signal comprises a modulated signal produced by performing quadrature amplitude modulation on a first baseband signal comprising a string of real numerical values and a second baseband signal comprising a string of imaginary numerical values, and wherein said power calculator calculates said power value from said first and second baseband signals,

said inverse characteristics calculator supplies real and imaginary parts of the inversion of the nonlinear distortion to said complex multiplier, and said complex multiplier effects a complex multiplication on said first and second baseband signals and the real and imaginary parts supplied from said inverse characteristics calculator.

3. A transmission circuit comprising:

a nonlinear distortion compensating circuit according to claim 1;

a modulator for modulating a signal output from said nonlinear distortion compensating circuit;

a power amplifier for amplifying a modulated signal output from said modulator; and

a thermometer for measuring a temperature of said power amplifier and supplying temperature information representative of the measured temperature to said nonlinear distortion compensating circuit.

4. A transmission circuit according to claim 3, wherein said modulator comprises a modulator for performing a quadrature amplitude modulation format.

5. A method of compensating for a nonlinear distortion, comprising the steps of:

(a) calculating a power value of an input signal;

(b) measuring a temperature of a power amplifier for amplifying said input signal;

(c) calculating an apparent power value from the power value calculated in said step (a) and the temperature measured in said step (b) based on a relationship, which has been given beforehand, between input vs. output characteristics of the power amplifier and the temperature of the power amplifier;

(d) calculating an inversion of a nonlinear distortion caused by the power amplifier from inverse characteristics data, which have been given beforehand, about the nonlinear distortion caused by the power amplifier and the apparent power value calculated in said step (c); and

(e) adding the inversion calculated in step (d) to said input signal.

6. A method according to claim 5, wherein said input signal comprises a modulated signal produced by performing quadrature amplitude modulation on a first baseband signal comprising a string of real numerical values and a second baseband signal comprising a string of imaginary numerical values, and wherein said step (a) comprises the step of calculating said power value from said first and second baseband signals, said step (d) comprises the step of calculating real and imaginary parts of the inversion of the nonlinear distortion, and said step (e) comprises the step of effecting a complex multiplication on the said first and second baseband signals and the real and imaginary parts calculated in said step (d).